Isolation of Vancomycin-Resistant *E. faecium* from Commercial Poultry

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Vancomycin resistant enterococci (VRE) are an increasingly important cause of nosocomial infections. In Europe, where the glycopeptide Avoparcin has been extensively used as a feed additive, VRE can readily be recovered from poultry. In the United States, where Avoparcin has never been used, VRE have not been found in feed animals or food. From July 1998 to June 1999, four collaborating laboratories have been screening whole chickens purchased from grocery stores for antibiotic-resistant enterococci. To detect VRE, whole chicken washes were plated on Ford Agar with 10 mg/ml vancomycin. An isolate of vancomycin-resistant Enterococcus faecium was recovered from a single chicken sample. This isolated, PMD-0199-1, had a vancomycin minimum inhibitory concentration (MIC) of >256 mg/ml and a teicoplanin MIC of 64 mg/ml by E-test. The vanA gene was detected by PCR. The strain was tested against other antibiotics using disk diffusion according to NCCLS standards. PMD-0199-1 was also resistant to multiple antibiotics including high level gentamicin and streptomycin and intermediate to Synercid. The species was determined by the biochemical scheme of Facklam and confirmed by ribotyping using the RiboPrinter Automated Microbial Characterization Scheme. The RiboPrint pattern of PMD-0199-1 clustered with other E faecium isolated from humans in our library. This is the first report of VRE in commercial poultry. The RiboPrint and susceptibility patterns are consistent with a human origin so it was likely introduced by human handling.

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